

Application No. 10/588,826

REMARKS

Favorable reconsideration and allowance of the subject application are respectfully requested. Claims 22-37 are pending in the present application, with claims 22 being independent.

Allowable Subject Matter

Applicants note with appreciation the Examiner's indication on page 7 of the outstanding Office Action that claims 31(or 32) and 33-34 would be allowable if rewritten in independent form and claim 35 would be allowable if rewritten to overcome the 35 USC 112 rejection and also placed into independent form. For at least the reasons detailed below, all pending claims should be considered allowable.

Drawings

The Examiner objected to the drawings, stating that the term "fitting" of claims 31 and 32 was not illustrated in the drawings. In response Applicants submit that the "fitting" is shown at Figure 6 as the item 17 identical to its references in Par [0043].

Claim Objections

Claims 31 and 32 were indicated as redundant however claim 31 refers to "the internal conductors of the jacketed cable" whereas claim 32 refers to "the internal conductors of the protective cable". Thus claims 31 and 32 are not redundant.

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Objections to Specification

The terms "fitting", "machining", "deep drawing" and "drilling" were objected to as not being supported in the specification. In response par [0040] has been amended to use the terms "machining", "deep drawing" and "drilling" and these items were in the original claim 20 filed with the specification. Because the claims are considered as part of the specification, there was support for those terms in the original specification. Additionally, as pointed out above, the "fitting" is supported by par [0043] as the "fitting 17".

Claim Rejections under 35 U.S.C. §112

The Examiner rejected claim 35 under 35 U.S.C. §112, second paragraph, as being indefinite with respect to the term "significant". In response claim 35 has been amended to delete this term.

Claim Rejections under 35 U.S.C. §103

The Examiner rejected claims 22-30 under 35 U.S.C. §103, as being unpatentable over Takahashi et al (U.S. 6,501,366) [herein after referred to as Takahashi 1] in view of Davis (US 7,060,949). Additionally claim 36 is rejected as unpatentable over Takahashi et al (U.S. 6,501,366) [herein after referred to as Takahashi 1] in view of Davis (US 7,060,949) and further in view of Takahashi (US 6,286,995) [hereinafter Takahashi 2] and claim 37 is rejected as unpatentable over Takahashi et al (U.S. 6,501,366) [herein after referred to as Takahashi 1] in view of Davis (US 7,060,949) and further in view of Takahashi (US 6,286,995) [hereinafter

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Takahashi 2] and Zondag (US 4,074,630). These rejections are respectfully traversed.

With respect to independent claim 22, applicants submit that the following claimed features are not disclosed by Takahashi 1:

(1) claim 22 requires that the measuring resistance be arranged in a ceramic casing together with strain-relieved measuring resistance connection wires whereas Takahashi has the measuring resistance and the wires arranged in an insulating powder without any indication of whether it is ceramic and the wires are not strain relieved;

(2) claim 22 requires that the ceramic casing be surrounded by a ceramic powder whereas Takahashi has insulating powder surrounded by a metal case and a ceramic adhesive (ceramic casing) in turn surrounds the metal case;

(3) claim 22 recites that the strain-relieved measuring resistance connection wires and internal conductors connect the measuring resistance to the electric cable whereas Takahashi has no intermediate conductors in the manner of the internal conductors 4 of the present invention;

(4) claim 22 recites that the internal conductors are arranged in the metal protective tube whereas Takahashi 1 has no intermediate conductors corresponding to the internal conductors 4 of the present invention;

(5) claim 22 recites that the protective metallic tube has a tapered tip in the vicinity of the measuring resistance which is not disclosed by Takahashi 1;

(6) claim 22 recites that the ceramic powder densely fills the protective tube whereas Takahashi 1 has the ceramic powder filling the metal case surrounding the resistance inside the ceramic adhesive;

(7) claim 22 recites that the auxiliary component is arranged proximate to the

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connection of the connecting cable to the protective tube than the metal case 40 of Takahashi 1 cannot be the auxiliary component as Figure 1 of Takahashi 1 does not show the back end of the protection tube and Figure 5 does not have the metal tube 40; and

(8) claim 22 recites that the at least one auxiliary component has a higher coefficient of thermal expansion than the protective tube. According to the rejection, when referring to the CTE (coefficient of thermal expansion), a comparison is made between the ceramic powder and the protective tube. However if it is accepted that the metallic tube is the claimed auxiliary tube, a comparison must be made between the CTE of the metallic tube and the CTE of the protective tube. Thus Takahashi 1 discloses that the protective tube is made of SUS310S, whose "CTE may be determined". Regarding the metal case 40, there is no particular material disclosed and thus its CTE is unknown. Thus there is no disclosure or suggestion regarding the relation of the CTE's to each other as required by claim 22.

The secondary reference to Davis is cited for showing a protective tube with a tapered tip and a strain relief portion. However even if the references could be combined the remaining features discussed above in items (1)-(4) and (6)-(9) would not be disclosed. Thus regardless of the combination of references the present invention of independent claim 22 does not result.

Claims 23-30 contain all the limitations of claim 22 and at least for the same reasons are also submitted as allowable.

Claim 36 contains all the limitations of claim 22 and even accepting the statement of the rejection for the showing of Takahashi 2, it adds nothing toward

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meeting the above discussed features of claim 22 absent from the combination of Takahashi 1 and Davis.

Claim 37 contains all the limitations of claim 22 and even accepting the statement of the rejection for the showing of Takahashi 2 and Zondag, they add nothing toward meeting the above discussed features of claim 22 absent from the combination of Takahashi 1 and Davis.

Therefore the removal of the rejections of claims 22-30 and 36-37 is respectfully requested.

CONCLUSION

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Martin R. Geissler, Applicants' Attorney at 1.703.621.7140 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3828 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Date: December 22, 2009

Respectfully Submitted,



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